

REMARKS/ARGUMENTS

Claim remarks with regards to 35 U.S.C. §103

The Examiner has rejected claims 34-48 under 35 U.S.C. §103 as being unpatentable over Kosaka et al., (20050185049). Applicant has amended the independent claims 34, 39 and 44 to more clearly specify the axis in which Applicant's invention is rotated and with respect to what, namely the roll axis with respect to ground as supported by paragraph 0014 of the disclosure. As such, the Examiner's previous rejections of these claims are respectfully moot. To further examination, Applicant shows why Kosaka '049 does not anticipate or render Applicant's claims obvious.

Kosaka '049 respectfully does not comprise at least the limitation "a camera mount coupled with said first camera and said second camera wherein said camera mount is rotated in a first axial angle with respect to ground between 0 and 90 degrees about a roll axis defined as parallel to said ground". Instead, Kosaka '049 aims to keep the camera mount level at all times. Specifically, see Fig. 11B and paragraph 0183. The camera mount 16 maintains level orientation when the vehicle tilts. This is in direct contrast to Applicant's invention wherein the "camera mount is rotated in a first axial angle with respect to ground between 0 and 90 degrees". The whole goal of Kosaka '049 is to keep the camera at 0 degrees offset in roll even when the vehicle is tilting around a corner for example. Tilt sensor 54a (or even the suspension tilt sensors of the car) is/are utilized to compensate for tilt to keep the camera mount at 0 roll. As per paragraph 0186, "Here, in a case where the vehicle tilts to the left...a control signal for adjusting the direction of the stereo camera 16 into a right tilt direction is output to the stereo camera joining device 56." Hence the field of view is always oriented parallel to the ground, again see camera 16 parallel to ground 98 in Fig. 11B and see paragraph 0222, "When the stereo camera supporting apparatus 50 of each embodiment according to the present invention is used as described above...the backward/forward/right/left tilt of the vehicle body depending on the road state, and **an appropriate imaging view field which is not influenced by the tilt** or the like of the road surface in front can be secured." Hence the goal of Kosaka '049 is to keep the image view field from being disrupted by keeping the camera mount level (zero roll). This is also

confirmed by the flowchart shown in Fig. 12, namely step S26 where the adjustment mechanism is driven to apply the left or right correction value determined in S25 or S24 respectively.

In addition, since the camera mount of Kosaka '049 is not allowed to operate at an angle other than zero roll, any computer used in Kosaka '049 hence would not calculate distance in a given environment comprising horizontal and vertical lines as Applicant's invention since epipolar lines parallel to the zero roll camera mount of Kosaka '049 do not coincide with the epipolar lines of the rotated camera mount of Applicant's invention that is configured to "calculate a distance using a first picture obtained from said first camera and a second picture obtained from said second camera to a feature found along an epipolar line parallel to said collinear horizontal center lines". In other words, since Applicant's camera mount is mounted between 0 and 90 degrees with respect to the ground it has the advantage of calculating the distance against environmental lines that are not parallel to "an epipolar line parallel to the collinear horizontal center lines" of Applicant's cameras. Kosaka '049 does not contemplate rotating the camera mount between 0 and 90 degrees with respect to ground in an environment with horizontal and vertical lines and teaches away from this by maintaining a zero roll orientation to secure image view field in a zero roll orientation. Hence, any environment comprising lines parallel to the epipolar lines of the camera in Kosaka '049 will respectfully have a high degree of error whereas the rotated camera mount of Applicant's invention would not observe these lines as parallel to its epipolar lines.

Since all claim limitations are not taught by the references as per MPEP 2143.03, the obviousness rejection is respectfully no longer applicable. As all other claims depend on the independent claims, all other claims are believed to be allowable as well.

The Examiner has stated that "official notice that camera mounts capable of rotating to any angle between 0 and 90 degrees were common and notoriously well known in the art at the time of the invention...to gain a wider stabilization range". Applicant's is not claiming any stabilization range limitation and Applicant respectfully traverses the official notice.

Furthermore, Applicant has now amended the claims to clarify that the camera mount is rotated with respect to the ground and not simply rotated. Applicant hereby requests references of that show "a first camera and second camera mounted on a camera mount that is then rotated in a first

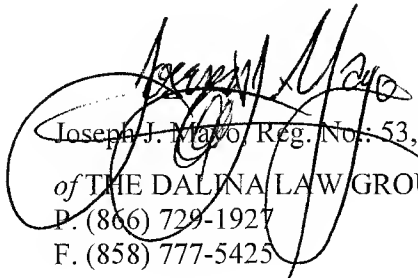
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axial angle with respect to ground between 0 and 90 degrees about a roll axis defined as parallel to said ground". Applicant respectfully maintains that known camera mounts are made for orientation in roll to *level a camera on uneven terrain* to keep a picture taken from that camera at ZERO ROLL, i.e., to appear NOT rotated, i.e., level with respect to ground, just as Kosaka has done.

CONCLUSION

As all rejections have been answered by Applicant and since the claims are respectfully not anticipated or rendered obvious by the references supplied by the Examiner, Applicant respectfully submits that the claims are in condition for allowance. Applicant hereby requests a telephone interview before any action (other than allowance) is initiated. Please see attached telephone interview request form.

Respectfully submitted,



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